Boundary Files,
Reference Guide

STATISTICS CANADA
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Census year 2011

Second edition

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Statistics Canada

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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between
Statistics Canada, the citizens of Canada, its businesses, governments and other
institutions. Accurate and timely statistical information could not be produced without their
continued cooperation and goodwill.

What's new?

- This second edition of the *Boundary Files, Reference Guide* accompanies the release of the 2011 Census Designated Place and Population Centre Boundary Files.

- For the 2011 Census, the boundaries of designated places (DPLs) may cross census subdivision (CSD) boundaries.

- All higher level geographic attributes are included in all boundary files, where available at the time of release.

- Updates were made to the hydrographic files with a selection of features from the National Hydro Network (NHN). As a result, users may notice differences in the geometry of the hydrography network in British Columbia compared to the 2006 Census version.

- Additional information pertaining to hydrography files is included in this guide.

- Effective February 3, 2011, the term 'population centre' has replaced the term 'urban area.' Population centres are classified into one of three groups based on the size of their population. For more information, see the note entitled *From urban areas to population centres* (www.statcan.gc.ca/subjects-sujets/standard-norme/sgc-cgt/urban-urbain-eng.htm).

- All 2011 Census Boundary Files are available for free download from the Statistics Canada website (www.statcan.gc.ca).

- All 2011 Census Boundary Files are available as national files.

Table of contents

1. About this guide

This reference guide is intended for users of the 2011 Census Boundary Files. The guide provides an overview of the files, the general methodology used to create them, and important technical information for users.

This reference guide does not provide details on specific software packages that are available for use with the 2011 Census Boundary Files. Users are advised to contact the appropriate software vendor for information.

The first edition of this guide was released on November 29, 2011, to accompany the release of the 2011 Census Province and Territory, Census Division, Economic Region, Census Metropolitan Area and Census Agglomeration, Census Consolidated Subdivision, Census Subdivision, Federal Electoral District (2003 Representation Order), Census Tract, Dissemination Area and Dissemination Block Boundary Files.

This second edition guide accompanies the release of the 2011 Census Designated Place and Population Centre Boundary Files.

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2. Overview

The 2011 Census Boundary Files depict boundaries of 2011 Census standard geographic areas established for the purpose of disseminating 2011 Census statistical data. A diagram illustrating the hierarchy of 2011 Census standard geographic areas is included in Appendix B of this guide.

The 2011 Census Boundary Files provide a framework for mapping and spatial analysis. They are available for download in two types: cartographic and digital. Cartographic boundary files depict the 2011 Census standard geographic areas with the shoreline of the major land mass of Canada and its coastal islands. Digital boundary files depict the full extent of the 2011 Census standard geographic areas, including the coastal water area. Figure 2.1 illustrates an example of cartographic and digital boundary files in Lambert conformal conic projection.

Figure 2.1 Example of a cartographic boundary file and a digital boundary file (provinces and territories)
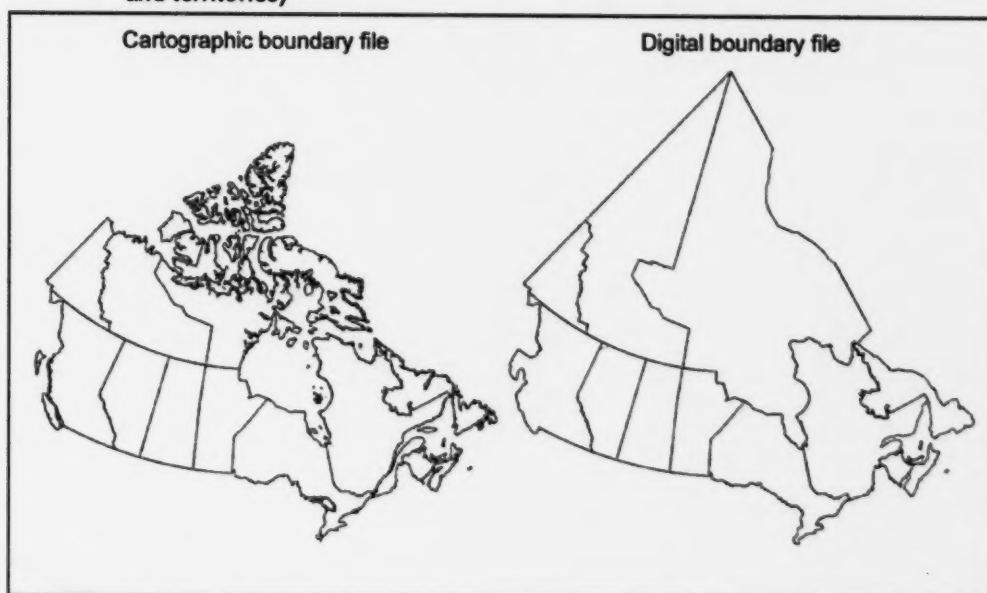
The 2011 Census Boundary Files are similar to the 2006 Census Boundary Files in format. New for the 2011 Census, each boundary file includes the unique identifiers, names and types (where applicable) of all higher level 2011 Census standard geographic areas available at the time of release.

Cartographic and digital boundary files are portrayed in latitude and longitude coordinates (North American Datum of 1983 [NAD83]). Figure 2.2 illustrates an example of a Lambert conformal conic projected cartographic boundary file and an unprojected file in latitude and longitude coordinates. They are available for the following 2011 Census standard geographic areas:

- province and territory
- census division
- economic region
- census metropolitan area and census agglomeration
- census consolidated subdivision
- census subdivision
- federal electoral district (2003 Representation Order)
- census tract
- dissemination area
- dissemination block
- population centre
- designated place
- census forward sortation area (**to be determined**)

Hydrographic reference files are also available:

- coast
- lakes
- rivers

Figure 2.2 Example of a map projection and unprojected coordinates
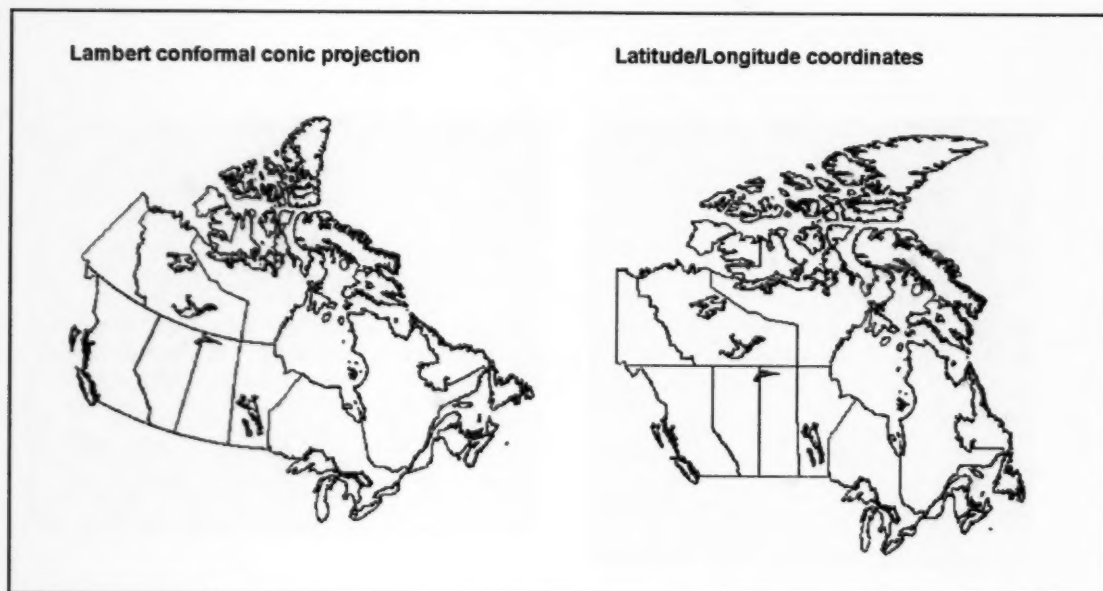
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Designated Place Boundary File, 2011 Census. Statistics Canada Catalogue no. 92-165-X.

Population Centre Boundary File, 2011 Census. Statistics Canada Catalogue no. 92-166-X.

Census Tract Boundary File, 2011 Census. Statistics Canada Catalogue no. 92-168-X.

Dissemination Area Boundary File, 2011 Census. Statistics Canada Catalogue no. 92-169-X.

Federal Electoral District Boundary File, 2011 Census. Statistics Canada Catalogue no. 92-171-X.

3. About this product

Purpose of the product

The purpose of the 2011 Census Boundary Files is to provide a framework to support Geographic Information System (GIS) applications used for land use and demographic studies, social, economic and market research and mapping. Geographic identifiers facilitate the linkage of statistical data to 2011 Census standard geographic areas depicted in the boundary files. Boundary files can also be used to create new geographic areas by combining 2011 Census standard geographic areas. The boundary files are positionally consistent with the 2011 Census Road Network File, which provides additional reference for mapping.

Definitions and concepts

Geographic terms and concepts are briefly defined in the glossary (Appendix A). More details can be found in the *2011 Census Dictionary* (Catalogue no. 98-301-X) and the 2011 Illustrated Glossary (Catalogue no. 92-195-X).

Content

Each boundary file contains the unique identifier (UID), name and type (where applicable) of the geographic level the file represents, as well as the UID, name and type of all higher level geographies, where available at time of release.

In addition to containing UID and name, the **Province/Territory** boundary file contains English name, French name, English abbreviation and French abbreviation.

In addition to containing UID and name, the **Federal Electoral District** boundary file contains English name and French name.

2011 Census population centre, census metropolitan area and census agglomeration geographic areas are portrayed in parts where these areas straddle a provincial boundary.

All files are available in English and French, in three formats: ArcGIS® (.shp), Geography Markup Language (.gml) and MapInfo® (.tab).

General methodology

The National Geographic Database (NGD) is a joint Statistics Canada-Elections Canada initiative to develop and maintain a spatial database which serves the needs of both organizations. The focus of the NGD is the continual improvement of quality and currency of spatial coverage using updates from provinces, territories and local sources. The source files used for the creation of the boundary files reside on Statistics Canada's Spatial Data Infrastructure (SDI) which was derived directly from data stored on the NGD.

To produce the boundary files, the following processes were applied:

Creation of the 2011 Census Digital Boundary Files

For digital boundary file creation, spatial and attribute information were extracted from the SDI using the lowest level of geography, the dissemination block. Primary data manipulation of the product files included preserving the geographic hierarchy of the attributes inherent within a geographic level. The dissemination block file was copied into a File Geo Database to facilitate

geo-processing (e.g., projecting, joins, transforming and verification operations). The spatial component of the file was reprojected from Lambert Conformal Conic into latitude and longitude coordinates (NAD83) using the ArcGIS® ArcCatalog Feature-Project tool.

All of the higher level digital boundary files were created from the dissemination block level. The files were verified for their spatial and attribute content, translated into French and English, and appropriately named according to the file naming convention (see section 4). Final data processing consisted of the conversion from the File Geo Database format, using FME® (Safe Software), into the following GIS file formats: ArcGIS® (.shp), Geography Markup Language (.gml) and MapInfo® (.tab).

The ArcGIS®, Geography Markup Language and MapInfo® files were compressed into WinZip® files (file extension .zip) and made available for download from the Internet.

Creation of the 2011 Census Cartographic Boundary Files

To create the cartographic boundary files, a subset of the full hydrography, the coastal file, was created. This subset of coastal hydrographic features was then used to erase the portions of dissemination blocks that are covered by coastal waters. As with the digital boundary file creation, all of the higher level cartographic boundary files were created from the dissemination block level.

The files were verified for their spatial and attribute content, translated into French and English, and appropriately named according to the file naming convention. Final data processing consisted of the conversion from the File Geo Database format, using FME® (Safe Software), into the following GIS file formats: ArcGIS® (.shp), Geography Markup Language (.gml) and MapInfo® (.tab).

The ArcGIS®, Geography Markup Language and MapInfo® files were compressed into WinZip® files (file extension .zip) and made available for download from the Internet.

Creation of the 2011 Hydrographic reference files

Coastal file

The coastal file was created by selecting a subset of hydrographic features which represent the coastal water bodies surrounding the land area of Canada. This file includes the St. Lawrence River, the Great Lakes, and Lake-of-the-Woods.

Inland lakes and rivers (polygon) file

The inland water file was created by selecting water features from the National Geographic Database's hydrographic reference layer. These reference data were sourced from the National Topographic Data Base (1:50,000 and the 1:250,000 maps) and the Digital Chart of the World. In British Columbia, information was supplemented with data from the National Hydro Network. The inland lakes and rivers polygon file contains a selection of water bodies not found in the coastal file.

Inland rivers (line) file

The inland rivers file contains a selection of linear water features such as rivers and streams.

The Hydrographic reference files were translated into French and English, and appropriately named according to the file naming convention. Final data processing consisted of the conversion from the File Geo Database format, using FME® (Safe Software), into the following GIS file formats: ArcGIS® (.shp), Geography Markup Language (.gml) and MapInfo® (.tab).

The ArcGIS®, Geography Markup Language and MapInfo® files were compressed into WinZip® files (file extension .zip) and made available for download from the Internet.

Limitations

The positional accuracy of these files does not support cadastral, surveying, digitizing or engineering applications.

The input data used to create the files were obtained from several sources having a wide range of scales. Boundary files will not be precise if plotted at a larger scale than the scale of the source material used in its creation. Maps created from the boundary files should not be used to determine the precise location of boundaries. The boundary files are not intended to serve as a legal or cadastral representation of the 2011 Census standard geographic areas.

Comparison to other products/versions

The suite of 2011 Census Boundary Files are compatible in that they portray their respective 2011 Census standard geographic area boundaries, as well as selected attributes for all higher level geographies that respect the geographic hierarchy, available at the time of release. Boundary files are derived from the same native source.

The land area for 2011 Census standard geographic areas present in GeoSuite may not be consistent with that computed from the cartographic boundary files. This is because the hydrographic features used in the creation of the cartographic boundary files are based on hydrographic features that were selected for thematic mapping.

The 2011 Census Boundary Files are similar but not necessarily consistent with boundary files released prior to the 2011 Census.

Using with other products

The 2011 Census Boundary Files can be linked to other 2011 Census statistical data products using the UID for each 2011 Census standard geographic area.

The 2011 Census Population Ecumene Census Division Cartographic files are generalized to render them suitable for cartographic display at a small scale. Due to this generalization, the position of the shorelines are not necessarily consistent with the suite of 2011 Census Cartographic Boundary Files or 2011 Census Road Network File.

When considering using the 2011 Census Boundary Files, users should be aware of the compatibility of these files with those that are available from other sources. They may not be consistent with Statistics Canada files.

Reference date

The geographic reference date is a date determined by Statistics Canada to finalize the geographic framework for which 2011 Census statistical data are collected, tabulated and reported. The reference date for 2011 Census standard geographic areas is January 1, 2011. More specifically, the Census reports data according to the geographic areas (e.g., municipalities and equivalents referred to as census subdivisions) that are in effect on January 1, 2011, provided that Statistics Canada receives the information on the changes by March 1, 2011 (see *2011 Census Dictionary* – Geographic reference date for more details).

4. Technical specifications

Record layouts and data descriptions

Province and Territory

The Province and Territory Boundary Files portray the boundaries of the 10 provinces and 3 territories for which 2011 Census statistical data are disseminated. Provinces and territories are the major political (legislated) areas of Canada. The files contain the boundaries of all provinces and territories which combined cover all of Canada.

Table 4.1 Province and territory boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
PRENAME	Character (30)	Province or territory name in English
PRFNAME	Character (30)	Province or territory name in French
PREABBR	Character (10)	English abbreviation of the province or territory name
PRFABBR	Character (10)	French abbreviation of the province or territory name

Census division

The Census Division Boundary Files portray the census division boundaries for which 2011 Census statistical data are disseminated. A census division is a unit of regional government (such as a county or regional district) or an area treated as equivalent for statistical purposes. A census division is usually made up of a number of adjacent census subdivisions (municipalities). The files contain the boundaries of all census divisions which combined cover all of Canada.

Table 4.2 Census division boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CDUID	Character (4)	Uniquely identifies a census division (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code)
CDNAME	Character (40)	Census division name
CDTYPE	Character (3)	Census division type

Table 4.3 Census division types by province and territory, 2011 Census

Census division type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
CDR	Census division / Division de recensement	85	11	...	...	...	5	9	23	18	19	...	...	...	...
CT	County / Comté	15	...	...	...	15	...	...	...	...	...	...	...	...	...
CTY	County	41	...	3	18	...	...	20	...	...	...	...	...	...	...
DIS	District	10	...	...	...	...	...	10	...	...	...	...	...	...	...
DM	District municipality	1	...	...	...	...	...	1	...	...	...	...	...	...	...
MRC	Municipalité régionale de comté	81	...	...	...	...	81	...	...	...	...	...	...	...	...
RD	Regional district	28	...	...	...	...	...	...	...	...	...	28	...	...	...
REG	Region	10	...	...	...	...	...	...	...	...	...	1	...	6	3
RM	Regional municipality	6	...	...	...	...	...	6	...	...	...	...	...	...	...
TÉ	Territoire équivalent	12	...	...	...	...	12	...	...	...	...	...	...	...	...
TER	Territory / Territoire	1	...	...	...	...	...	...	...	...	...	...	1	...	...
UC	United counties	3	...	...	...	...	...	3	...	...	...	...	...	...	...
Total		293	11	3	18	15	98	49	23	18	19	29	1	6	3

... not applicable
Source: Statistics Canada, 2011 Census of Population.

Economic region

The Economic Region Boundary Files portray the economic region boundaries for which 2011 Census statistical data are disseminated. An economic region is a grouping of complete census divisions (with an exception in Ontario) created as a 2011 Census standard geographic area for analysis of regional economic activity. The files contain the boundaries of all economic regions which combined cover all of Canada.

Table 4.4 Economic region boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
ERUID	Character (4)	Uniquely identifies an economic region (composed of the 2-digit province or territory unique identifier followed by the 2-digit economic region code)
ERNAME	Character (85)	Economic region name

Census metropolitan area and census agglomeration

The Census Metropolitan Area and Census Agglomeration Boundary Files portray the boundaries of the census metropolitan areas and census agglomerations for which 2011 Census statistical data are disseminated. Census metropolitan areas and census agglomerations consist of one or more adjacent municipalities (census subdivisions) around a core. To form a census metropolitan area, the core must have a population of at least 50,000 and the entire census metropolitan area must have a total population of at least 100,000. To form a census agglomeration, the core must have a population of at least 10,000. The files contain the boundaries of all census metropolitan areas and census agglomerations defined for the census. Census metropolitan areas and census agglomerations crossing provincial boundaries appear in the boundary files in provincial parts.

There is one census metropolitan area and three census agglomerations that cross provincial boundaries. In each of these cases, the census metropolitan area and census agglomeration is divided by the provincial limit and is represented as two polygon records in the boundary file.

The census metropolitan area and three census agglomerations that cross provincial boundaries are:

- Census Metropolitan Area of Ottawa – Gatineau, CMAUID 505, crosses the Quebec/Ontario provincial boundary
- Census Agglomeration of Campbellton, CMAUID 330, crosses the New Brunswick/Quebec provincial boundary
- Census Agglomeration of Hawkesbury, CMAUID 502, crosses the Quebec/Ontario provincial boundary
- Census Agglomeration of Lloydminster, CMAUID 840, crosses the Saskatchewan/Alberta provincial boundary

Table 4.5 Census metropolitan area and census agglomeration boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CMAUID	Character (3)	Uniquely identifies a census metropolitan area or census agglomeration
CMANAME	Character (100)	Census metropolitan area or census agglomeration name
CMATYPE	Character (1)	A one-character field identifying whether the unit is a census metropolitan area, a tracted census agglomeration or a non-tracted census agglomeration
CMAPUID	Character (5)	Uniquely identifies the provincial or territorial part of a census metropolitan area or census agglomeration (composed of the 2-digit province or territory unique identifier followed by the 3-digit census metropolitan area or census agglomeration unique identifier)

Table 4.6 Census metropolitan area and census agglomeration types by province and territory, 2011 Census

Census metropolitan area and census agglomeration type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
B	census metropolitan area	34	1	0	1	2	6	15	1	2	2	4	0	0	0
D	census agglomeration with no census tracts	102	3	2	4	4	22	24	4	7	13	17	1	1	0
K	census agglomeration with census tracts	15	0	0	0	1	3	4	0	0	3	4	0	0	0
Total		151	4	2	5	7	31	43	5	9	18	25	1	1	0

Note: includes provincial parts.
Source: Statistics Canada, 2011 Census of Population.

Census consolidated subdivision

The Census Consolidated Subdivision Boundary Files portray the census consolidated subdivision boundaries for which 2011 Census statistical data are disseminated. A census consolidated subdivision is a grouping of adjacent census subdivisions (municipalities) used primarily for disseminating Census of Agriculture data. The files contain the boundaries of all census consolidated subdivisions which combined cover all of Canada.

Table 4.7 Census consolidated subdivision boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CDUID	Character (4)	Uniquely identifies a census division (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code)
CDNAME	Character (40)	Census division name
CDTYPE	Character (3)	Census division type
CCSUID	Character (7)	Uniquely identifies a census consolidated subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census consolidated subdivision code)
CCSNAME	Character (55)	Census consolidated subdivision name

Census subdivision

The Census Subdivision Boundary Files portray the census subdivision boundaries for which 2011 Census statistical data are disseminated. A census subdivision is a municipality or an area treated as equivalent to a municipality for statistical purposes (for example, Indian reserves and unorganized territories). Municipal status is defined by laws in effect in each province and territory in Canada. The files contain the boundaries of all census subdivisions which combined cover all of Canada.

Table 4.8 Census subdivision boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CDUID	Character (4)	Uniquely identifies a census division (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code)
CDNAME	Character (40)	Census division name
CDTYPE	Character (3)	Census division type
ERUID	Character (4)	Uniquely identifies an economic region (composed of the 2-digit province or territory unique identifier followed by the 2-digit economic region code)
ERNAME	Character (85)	Economic region name
CCSUID	Character (7)	Uniquely identifies a census consolidated subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census consolidated subdivision code)
CCSNAME	Character (55)	Census consolidated subdivision name
CSDUID	Character (7)	Uniquely identifies a census subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census subdivision code)
CSDNAME	Character (55)	Census subdivision name
CSDTYPE	Character (3)	Census subdivisions are classified according to designations adopted by provincial or territorial or federal authorities
CMAUID	Character (3)	Uniquely identifies a census metropolitan area or census agglomeration
CMANAME	Character (100)	Census metropolitan area or census agglomeration name

Table 4.8 Census subdivision boundary files record layout (continued)

Attribute name	Data type	Description
CMATYPE	Character (1)	A one-character field identifying whether the unit is a census metropolitan area, a tracted census agglomeration or a non-tracted census agglomeration
CMAPUID	Character (5)	Uniquely identifies the provincial or territorial part of a census metropolitan area or census agglomeration (composed of the 2-digit province or territory unique identifier followed by the 3-digit census metropolitan area or census agglomeration unique identifier)
SACTYPE	Character (1)	The Statistical Area Classification groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration, a census metropolitan influenced zone or the territories
SACCODE	Character (3)	The 3-digit Statistical Area Classification code

SACTYPE

The Statistical Area Classification type is a one-digit code that identifies whether a census subdivision is a component of a census metropolitan area (CMA), a census agglomeration (CA), a census metropolitan influenced zone (MIZ) or in the territories.

SACCODE

The Statistical Area Classification code is a three-digit code that identifies for which census metropolitan area (CMA), census agglomeration (CA) or census metropolitan influenced zone (MIZ) a census subdivision is a component. The MIZ categories, which denote the degree of influence that the CMAs and/or CAs have on these zones, are: strong (code 996), moderate (code 997), weak (code 998), no influence (code 999), or the territories (code 000), where the classification is not applicable.

Table 4.9 Statistical Area Classification types by province and territory, 2011 Census

	Statistical Area Classification types	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1	CSD within CMA	469	13	0	5	31	157	92	12	41	44	74	0	0	0
2	CSD within CA with at least one CT	93	0	0	0	12	13	16	0	0	11	41	0	0	0
3	CSD within CA having no CTs	367	15	23	18	33	68	40	8	25	33	96	7	1	0
4	CSD outside of CMA or CA area having strong metropolitan influence	594	30	32	3	32	237	95	17	62	52	34	0	0	0
5	CSD outside of CMA or CA area having moderate metropolitan influence	1,441	134	48	23	91	490	143	61	248	111	92	0	0	0
6	CSD outside of CMA or CA area having weak metropolitan influence	976	75	6	39	56	145	87	116	208	106	138	0	0	0
7	CSD outside of CMA or CA area having no metropolitan influence	1,212	109	4	11	18	175	101	73	375	78	268	0	0	0
8	CSD within the territories, outside of CA	101	0	0	0	0	0	0	0	0	0	0	30	40	31
	Total	5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31

CSD   census subdivision
CMA   census metropolitan area
CA   census agglomeration
CT   census tract
Source: Statistics Canada, 2011 Census of Population.

Federal electoral district

The Federal Electoral District Boundary Files portray the federal electoral district boundaries for which 2011 Census statistical data are disseminated. A federal electoral district is an area represented by a Member of Parliament in the House of Commons. The federal electoral district boundaries used for the 2011 Census are based on the 2003 Representation Order. The files contain the boundaries of all federal electoral districts which combined cover all of Canada. The Federal Electoral District boundary files portray the federal electoral districts in effect on January 1, 2011.

Table 4.10 Federal electoral district boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
FEDUID	Character (5)	Uniquely identifies a federal electoral district (composed of the 2-digit province or territory unique identifier followed by the 3-digit federal electoral district code)
FEDNAME	Character (85)	Federal electoral district name
FEDENAME	Character (55)	Federal electoral district name in English
FEDFNAME	Character (55)	Federal electoral district name in French

Census tract

The Census Tract Boundary Files portray the census tract boundaries for which 2011 Census statistical data are disseminated. Census tracts are small; relatively stable 2011 Census standard geographic areas that usually have a population between 2,500 and 8,000. They are located in census metropolitan areas and in census agglomerations with a core population of 50,000 or more in the previous census. The files contain the boundaries of all census tracts located within the census metropolitan areas and census agglomerations for which census tracts are delineated.

Table 4.11 Census tract boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CMAUID	Character (3)	Uniquely identifies a census metropolitan area or census agglomeration
CMANAME	Character (100)	Census metropolitan area or census agglomeration name
CMATYPE	Character (1)	A one-character field identifying whether the unit is a census metropolitan area, a tracted census agglomeration or a non-tracted census agglomeration
CMAPUID	Character (5)	Uniquely identifies the provincial or territorial part of a census metropolitan area or census agglomeration (composed of the 2-digit province or territory unique identifier followed by the 3-digit census metropolitan area or census agglomeration unique identifier)
CTUID	Character (10)	Uniquely identifies a census tract within a census metropolitan area or census agglomeration (composed of the 3-digit census metropolitan area or census agglomeration unique identifier followed by the 7.2-character census tract name)
CTNAME	Character (7)	Every census tract is assigned a 7.2-character numeric 'name' (including leading zeros, a decimal point and trailing zeros)

Dissemination area

The Dissemination Area Boundary Files portray the dissemination area boundaries for which 2011 Census statistical data are disseminated. A dissemination area is a small area composed of one or more neighbouring blocks and is the smallest 2011 Census standard geographic area for which all 2011 Census statistical data are available. The files contain the boundaries of all dissemination areas which combined cover all of Canada.

Table 4.12 Dissemination area boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CDUID	Character (4)	Uniquely identifies a census division (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code)
CDNAME	Character (40)	Census division name
CDTYPE	Character (3)	Census division type
ERUID	Character (4)	Uniquely identifies an economic region (composed of the 2-digit province or territory unique identifier followed by the 2-digit economic region code)
ERNAME	Character (85)	Economic region name
CCSUID	Character (7)	Uniquely identifies a census consolidated subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census consolidated subdivision code)
CCSNAME	Character (55)	Census consolidated subdivision name
CSDUID	Character (7)	Uniquely identifies a census subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census subdivision code)
CSDNAME	Character (55)	Census subdivision name
CSDTYPE	Character (3)	Census subdivisions are classified according to designations adopted by provincial or territorial or federal authorities
CMAUID	Character (3)	Uniquely identifies a census metropolitan area or census agglomeration
CMANAME	Character (100)	Census metropolitan area or census agglomeration name
CMATYPE	Character (1)	A one-character field identifying whether the unit is a census metropolitan area, a tracted census agglomeration or a non-tracted census agglomeration

Table 4.12 Dissemination area boundary files record layout (continued)

Attribute name	Data type	Description
CMAPUID	Character (5)	Uniquely identifies the provincial or territorial part of a census metropolitan area or census agglomeration (composed of the 2-digit province or territory unique identifier followed by the 3-digit census metropolitan area or census agglomeration unique identifier)
SACTYPE	Character (1)	The Statistical Area Classification groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration, a census metropolitan influenced zone or the territories
SACCODE	Character (3)	The 3-digit Statistical Area Classification code
CTUID	Character (10)	Uniquely identifies a census tract within a census metropolitan area or census agglomeration (composed of the 3-digit census metropolitan area or census agglomeration unique identifier followed by the 7.2-character census tract name)
CTNAME	Character (7)	Every census tract is assigned a 7.2-character numeric 'name' (including leading zeros, a decimal point and trailing zeros)
DAUID	Character (8)	Uniquely identifies a dissemination area (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 4-digit dissemination area code)

Dissemination block

The Dissemination Block Boundary Files portray the dissemination block boundaries for which 2011 Census statistical data are disseminated. A dissemination block is an area bounded on all sides by roads and/or boundaries of 2011 Census standard geographic areas and is the smallest 2011 Census standard geographic area for which population and dwelling count data are available.

The digital boundary file contains the boundaries of all 493,345 dissemination blocks which combined cover all of Canada. The cartographic boundary file contains the boundaries of 493,192 dissemination blocks (see section 5, Data quality/Completeness).

Table 4.13 Dissemination block boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
CDUID	Character (4)	Uniquely identifies a census division (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code)
CDNAME	Character (40)	Census division name
CDTYPE	Character (3)	Census division type
ERUID	Character (4)	Uniquely identifies an economic region (composed of the 2-digit province or territory unique identifier followed by the 2-digit economic region code)
ERNAME	Character (85)	Economic region name
CCSUID	Character (7)	Uniquely identifies a census consolidated subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census consolidated subdivision code)
CCSNAME	Character (55)	Census consolidated subdivision name
CSDUID	Character (7)	Uniquely identifies a census subdivision (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 3-digit census subdivision code)
CSDNAME	Character (55)	Census subdivision name
CSDTYPE	Character (3)	Census subdivisions are classified according to designations adopted by provincial or territorial or federal authorities
CMAUID	Character (3)	Uniquely identifies a census metropolitan area or census agglomeration
CMANAME	Character (100)	Census metropolitan area or census agglomeration name
CMATYPE	Character (1)	A one-character field identifying whether the unit is a census metropolitan area, a tracted census agglomeration or a non-tracted census agglomeration
CMAPUID	Character (5)	Uniquely identifies the provincial or territorial part of a census metropolitan area or census agglomeration (composed of the 2-digit province or territory unique identifier followed by the 3-digit census metropolitan area or census agglomeration unique identifier)

Table 4.13 Dissemination block boundary files record layout (continued)

Attribute name	Data type	Description
SACTYPE	Character (1)	The Statistical Area Classification groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration, a census metropolitan influenced zone or the territories
SACCODE	Character (3)	The 3-digit Statistical Area Classification code
FEDUID	Character (5)	Uniquely identifies a federal electoral district (composed of the 2-digit province or territory unique identifier followed by the 3-digit federal electoral district code)
FEDNAME	Character (85)	Federal electoral district name
CTUID	Character (10)	Uniquely identifies a census tract within a census metropolitan area or census agglomeration (composed of the 3-digit census metropolitan area or census agglomeration unique identifier followed by the 7.2-character census tract name)
CTNAME	Character (7)	Every census tract is assigned a 7.2-character numeric 'name' (including leading zeros, a decimal point and trailing zeros)
DAUID	Character (8)	Uniquely identifies a dissemination area (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code and the 4-digit dissemination area code)
DBUID	Character (10)	Uniquely identifies a dissemination block (composed of the 2-digit province or territory unique identifier followed by the 2-digit census division code, the 4-digit dissemination area code and the 2-digit dissemination block code)
DBRPLAT	Number (11.8)	Dissemination block representative point latitude coordinate, in decimal degrees
DBRPLONG	Number (13.8)	Dissemination block representative point longitude coordinate, in decimal degrees

Population centre

The Population Centre Boundary Files portray the population centre boundaries for which 2011 Census statistical data are disseminated. A population centre has a minimum population of 1,000 persons and a population density of at least 400 persons per square kilometre, based on the current census population count. The files contain the boundaries of all population centres defined for the census. Population centres crossing provincial boundaries appear in the boundary files in provincial parts.

There are five population centres that cross provincial boundaries. In each of these cases, the population centre is divided by the provincial limit and is represented as two polygon records in the boundary file. The five population centres that cross provincial boundaries are:

- Campbellton crosses the New Brunswick/Quebec provincial boundary
- Hawkesbury crosses the Quebec/Ontario provincial boundary
- Ottawa – Gatineau crosses the Quebec/Ontario provincial boundary
- Flin Flon crosses the Manitoba/Saskatchewan provincial boundary
- Lloydminster crosses the Saskatchewan/Alberta provincial boundary

Population centre type categories includes core: secondary core, fringe inside census metropolitan area or census agglomeration, as well as population centre outside census metropolitan areas and census agglomerations.

Population centre size class groups population centres into one of the following three categories:

- small population centre, with a population between 1,000 and 29,999
- medium population centre, with a population between 30,000 and 99,999
- large urban population centre, with a population of 100,000 or more.

Table 4.14 Population centre boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
PCUID	Character (4)	Uniquely identifies a population centre
PCNAME	Character (100)	Population centre name
PCTYPE	Character (1)	Population centre type
PCPUID	Character (6)	Uniquely identifies the provincial or territorial part of a population centre (composed of the 2-digit province or territory unique identifier followed by the 4-digit population centre unique identifier).
PCCLASS	Character (1)	Distinguishes between small population centres, medium population centres and large urban population centres
CMAUID	Character (3)	Uniquely identifies a census metropolitan area or census agglomeration

Table 4.14 Population centre boundary files record layout (continued)

Attribute name	Data type	Description
CMANAME	Character (100)	Census metropolitan area or census agglomeration name
CMATYPE	Character (1)	A one-character field identifying whether the unit is a census metropolitan area, a tracted census agglomeration or a non-tracted census agglomeration
CMAPUID	Character (5)	Uniquely identifies the provincial or territorial part of a census metropolitan area or census agglomeration (composed of the 2-digit province or territory unique identifier followed by the 3-digit census metropolitan area or census agglomeration unique identifier)

Note: The official abbreviation for population centre is POPCTR. However, due to attribute name length limitations for some GIS applications, PC is used to represent population centre.

Table 4.15 Population centre type values by province and territory, 2011 Census

	Population centre type values	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1	Core inside CMA or CA	151	4	2	5	7	31	43	5	9	18	25	1	1	...
2	Fringe inside CMA or CA	164	2	1	7	4	34	68	4	10	16	18	...	...	...
4	POPCTR outside CMA or CA	607	24	4	25	22	172	146	35	44	70	56	...	2	7
6	Secondary core inside CMA or CA	25	...	...	...	...	6	13	...	...	5	1	...	...	...
	Total	**947**	**30**	**7**	**37**	**33**	**243**	**270**	**44**	**63**	**109**	**100**	**1**	**3**	**7**

... not applicable
Note: includes provincial parts.
CMA   census metropolitan area
CA   census agglomeration
POPCTR   population centre
Source: Statistics Canada, 2011 Census of Population.

Table 4.16 Population centre size class values by province and territory, 2011 Census

	Population centre size class values	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
2	Small population centre	861	29	6	35	30	224	237	42	59	101	87	1	3	7
3	Medium population centre	54	...	1	1	2	13	19	1	2	6	9	...	...	...
4	Large urban population centre	32	1	...	1	1	6	14	1	2	2	4	...	...	...
	Total	**947**	**30**	**7**	**37**	**33**	**243**	**270**	**44**	**63**	**109**	**100**	**1**	**3**	**7**

... not applicable
Note: includes provincial parts.
Source: Statistics Canada, 2011 Census of Population.

Designated place

The Designated Place Boundary Files portray the designated place boundaries for which 2011 Census statistical data are disseminated. A designated place is normally a small community or settlement that does not meet the criteria established by Statistics Canada to be a census subdivision (an area with municipal status) or a population centre. Designated places are created by provinces and territories, in cooperation with Statistics Canada, to provide data for submunicipal areas. The files contain the boundaries of all designated places defined for the 2011 Census.

The digital boundary file contains the boundaries of all 1,507 designated places. The cartographic boundary file contains the boundaries of 1,503 designated places (see section 5, Data quality/Completeness).

Table 4.17 Designated place boundary files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary CartographicBoundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup Language
PRUID	Character (2)	Uniquely identifies a province or territory
PRNAME	Character (55)	Province or territory name
DPLUID	Character (6)	Uniquely identifies a designated place (composed of the 2-digit province or territory unique identifier followed by the 4-digit designated place code)
DPLNAME	Character (85)	Designated place name
DPLTYPE	Character (3)	Designated place type

Table 4.18 Designated place types by province and territory, 2011 Census

Designated place type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
CFA	Class IV area	65	...	...	65	...	...	...	...	...	...	...	...	...	...
DMU	Dissolved municipality	85	...	...	...	...	...	44	2	37	2	...	...	...	...
DPL	Designated place	183	183	...	...	...	...	...	...	...	...	...	...	...	...
IRI	Indian reserve/ Réserve indienne	53	...	...	...	...	...	...	...	...	...	53	...	...	...
IST	Island trust	26	...	...	...	...	...	...	...	...	...	26	...	...	...
LNC	Localité non constituée	12	...	...	...	...	12	...	...	...	...	...	...	...	...
LSB	Local service board	44	...	...	...	...	...	44	...	...	...	...	...	...	...
LSD	Local service district	167	...	...	...	167	...	...	...	...	...	...	...	...	...
LUD	Local urban district	36	...	...	...	...	...	...	36	...	...	...	...	...	...
MDI	Municipalité dissoute	94	...	...	...	...	94	...	...	...	...	...	...	...	...
MDP	Municipal defined places	26	...	...	...	...	...	26	...	...	...	...	...	...	...
MET	Métis settlement	10	...	...	...	...	...	...	...	...	10		...	...	...
NCM	Northern community	46	...	...	...	...	...	...	46	...	...	...	...	...	...
NVL	Nisga'a village	5	...	...	...	...	...	...	...	...	...	5	...	...	...
OHM	Organized hamlet	157	...	...	...	...	...	...	...	157	...	...	...	...	...
SE	Aboriginal settlement	1	...	...	...	...	...	...	...	...	...	...	1	...	...
UNP	Unincorporated place	484	...	...	...	...	...	...	...	...	249	235	...	...	...
UUC	Unincorporated urban centre	13	...	...	...	...	...	...	13	...	...	...	...	...	...
Total		1,507	183	0	65	167	106	114	97	194	261	319	1	0	0

... not applicable

Source: Statistics Canada, 2011 Census of Population

Hydrographic reference files

The hydrographic reference files are provided for the mapping of inland and coastal waters, Great Lakes and the St. Lawrence River. These files were created to be used in conjunction with the boundary files to enable mapping at various scales. The record layout in Table 4.19 below is for inland lakes and rivers (polygons), coast (polygons) and inland rivers (lines).

Table 4.19 Hydrographic reference files record layout

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcGIS®
Shape	Geometry	Specific to ArcGIS®
DigitalBoundary Cartographic Boundary	MultiPolygon PropertyType	Shape geometry; specific to Geography Markup language
HYDROUID	Character (7)	Uniquely identifies a hydrographic feature
NAME	Character (55)	Feature name
RANK	Integer	Feature rank
PRUID	Character (2)	Uniquely identifies a province or territory

Table 4.20 Hydrographic reference files feature count

PRUID	Coastal file (number of polygons)	Lakes and Rivers file (number of polygons)	Rivers file (number of lines)
10	5,083	4,965	6,062
11	147	358	80
12	1,966	8,226	4,063
13	472	3,418	3,759
24	4,330	37,775	19,078
35	12,164	43,237	19,471
46	71	6,804	4,745
47	0	5,455	6,027
48	0	4,270	9,606
59	26,386	56,834	186,648
60	35	1,563	3,714
61	1,319	26,236	8,375
62	26,264	26,659	5,988
Greater than 62	53	22	5
Total	78,290	225,822	277,621

Table 4.21 Hydrographic reference files feature count by rank

Rank	Coastal file (number of polygons)	Lakes and Rivers file (number of polygons)	Rivers file (number of lines)
0	78,290	0	0
1	0	111	0
2	0	3,237	11,442
3	0	3,357	19,221
4	0	10,873	36,032
5	0	19,967	80,914
6	0	64,245	130,012
7	0	124,032	0
Total	78,290	225,822	277,621

Notes:
All features within the Coastal file (polygon) are assigned a rank value equal to the value 'zero.'
Within the Lakes and Rivers file (polygons) and the Rivers file (lines), the general guiding principle is that larger features are assigned lower rank values (e.g., 1, 2, 3) whereas smaller features are assigned higher rank values (e.g., 5, 6, 7).
Lakes and Rivers (polygon) features assigned rank value '7' consist of hydrographic bodies and islands having extremely small polygon areas.
Features located outside Canada are assigned a PRUID value greater than 62.

Attribute domain values

CDTYPE

The following is a list of the types of census divisions.

CDTYPE	CD description
CDR	Census division / Division de recensement
CT	County / Comté
CTY	County
DIS	District
DM	District municipality
MRC	Municipalité régionale de comté
RD	Regional district
REG	Region
RM	Regional municipality
TÉ	Territoire équivalent
TER	Territory / Territoire
UC	United counties

CSDTYPE

Census subdivisions are classified according to designations adopted by provincial or territorial or federal authorities. The following is a list of the types of census subdivisions.

CSDTYPE	CSD description	CSDTYPE	CSD description
C	City / Cité	RCR	Rural community / Communauté rurale
CC	Chartered community	RDA	Regional district electoral area
CG	Community government	RG	Region
CN	Crown colony / Colonie de la couronne	RGM	Regional municipality
COM	Community	RM	Rural municipality
CT	Canton (municipalité de)	RV	Resort village
CU	Cantons unis (municipalité de)	S-É	Indian settlement / Établissement indien
CV	City / Ville	SA	Special area
CY	City	SC	Subdivision of county municipality / Subdivision municipalité de comté
DM	District municipality	SÉ	Settlement / Établissement
HAM	Hamlet	SET	Settlement
ID	Improvement district	SG	Self-government / Autonomie gouvernementale
IGD	Indian government district	SM	Specialized municipality
IM	Island municipality	SNO	Subdivision of unorganized / Subdivision non organisée
IRI	Indian reserve / Réserve indienne	SV	Summer village
LGD	Local government district	T	Town
LOT	Township and royalty	TC	Terres réservées aux Cris
M	Municipality / Municipalité	TI	Terre inuite
MD	Municipal district	TK	Terres réservées aux Naskapis
MÉ	Municipalité	TL	Teslin land
MU	Municipality	TP	Township
NH	Northern hamlet	TV	Town / Ville
NL	Nisga'a land	V	Ville
NO	Unorganized / Non organisé	VC	Village cri
NV	Northern village	VK	Village naskapi
P	Parish / Paroisse (municipalité de)	VL	Village
PE	Paroisse (municipalité de)	VN	Village nordique

CMATYPE

The following is a list of the types of census metropolitan area and census agglomerations.

CMATYPE	CMA description
B	Census metropolitan area (CMA)
D	Census agglomeration (CA) with no census tracts
K	Census agglomeration (CA) with census tracts
< Null >	not applicable (outside of CMA or CA)

SACTYPE

The Statistical Area Classification type is a one-digit code that identifies whether a census subdivision is a component of a census metropolitan area (CMA), a census agglomeration (CA), a census metropolitan influenced zone (MIZ) or in the territories. The following is a list of the types of Statistical Area Classification.

SACTYPE	SACTYPE description
1	Census subdivision within census metropolitan area
2	Census subdivision within census agglomeration with at least one census tract
3	Census subdivision within census agglomeration having no census tracts
4	Census subdivision outside of census metropolitan area and census agglomeration area having strong metropolitan influence
5	Census subdivision outside of census metropolitan area and census agglomeration area having moderate metropolitan influence
6	Census subdivision outside of census metropolitan area and census agglomeration area having weak metropolitan influence
7	Census subdivision outside of census metropolitan area and census agglomeration area having no metropolitan influence
8	Census subdivision within the territories, outside of census agglomeration

SACCODE

The Statistical Area Classification code is a three-digit code that identifies for which census metropolitan area (CMA), census agglomeration (CA) or census metropolitan influenced zone (MIZ) a census subdivision is a component. The MIZ categories, which denote the degree of influence that the CMAs and/or CAs have on these zones, are: strong (code 996), moderate (code 997), weak (code 998), no influence (code 999), or the territories (code 000) where the classification is not applicable. The following is a list of the Statistical Area Classification codes.

SACCODE	SACCODE description
000	Territories, outside of census agglomeration (CA)
001-995	CMA or CA
996	Strong
997	Moderate
998	Weak
999	No influence

More details can be found in the *Standard Geographical Classification* (SGC), *volume I* – Statistical Area Classification – Variants of SGC (Catalogue no. 12-571-XWE).

PCTYPE

The following is a list of the population centre types.

1	Core inside of a census metropolitan area or census agglomeration
2	Fringe inside of a census metropolitan area or census agglomeration
4	Population centre outside of a census metropolitan area or census agglomeration
6	Secondary core inside of a census metropolitan area or census agglomeration

PCCLASS

The following is a list of the population centre size classes.

2	Small population centre (population 1,000 to 29,999)
3	Medium population centre (population 30,000 to 99,999)
4	Large urban population centre (population 100,000 or greater)

DPLTYPE

The following is a list of the types of designated places.

CFA	Class IV area
DMU	Dissolved municipality
DPL	Designated place
IRI	Indian reserve / Réserve indienne
IST	Island trust
LNC	Localité non constituée
LSB	Local service board
LSD	Local service district
LUD	Local urban district
MDI	Municipalité dissoute
MDP	Municipal defined places
MET	Métis settlement
NCM	Northern community
NVL	Nisga'a village
OHM	Organized hamlet
SE	Aboriginal settlement
UNP	Unincorporated place
UUC	Unincorporated urban centre

File specifications

Not applicable

Software formats

2011 Census Boundary Files are available for download from the Statistics Canada website in the following formats:

- ArcGIS® format
  File extension: .shp

- Geography Markup Language version 3.1.1
  File extension: .gml

- MapInfo® format
  File extension: .tab

This reference guide does not provide details on specific software packages that are available for use with the 2011 Census Boundary Files. Users are advised to contact the appropriate software vendor for information.

System requirements

Not applicable

File extension and accented character information

The ArcGIS®, Geography Markup Language and MapInfo® files are compressed into WinZip® files (file extension .zip).

An XML schema file (.xsd) is included to describe and validate the structure and content of the .gml files.

Some 2011 Boundary Files contain attributes with accented characters. They were successfully tested on desktop versions of ArcGIS® 9.3.1 and MapInfo® 11.0.1.

Geographic representation

The 2011 Census Boundary Files are available on the Statistics Canada website in the following geographic representation:

Datum: NAD83
Coordinates: Longitude and Latitude

The North American Datum of 1983 (NAD83) is an adjustment of the 1927 datum (NAD27) that reflects the higher accuracy of geodetic surveying.

The geographical coordinate system is the primary locational reference system for the earth. This system provides for the unique statement of location for features such as points, lines and polygons.

Users of 2011 Census Boundary Files can transform the files into the representation that best satisfies their needs, knowing the effects these representations have on angles, areas, distances and direction.

File naming convention

Spatial product file names follow a file naming convention. The file projection, geographic level, geographic coverage, file type, geographic reference date, software type and language are embedded within the file name. Standardizing the names of the files facilitates the storage of compressed files, all having the extension .zip.

Each file name is 13 characters in length. All alphabetic characters are in lower case to maintain consistency.

First character: projection of file

     g   projection is Geographic (latitude and longitude)

Next three characters: primary geographic level of file

pr_	province and territory
fed	federal electoral district
er_	economic region
cd_	census division
csd	census subdivision
ccs	census consolidated subdivision
cma	census metropolitan area and census agglomeration
ct_	census tract
da_	dissemination area
db_	dissemination block
pc_	population centre
dpl	designated place
hy_	supporting hydrography (Great Lakes, St. Lawrence River, oceans, etc.)

Next three numbers: geographic code of coverage

     000   Canada

Next character: file type

a	digital boundary file
b	cartographic boundary file
c	interior lakes and rivers hydrographic reference file (polygon)
d	interior rivers hydrographic reference file (line)
h	hydrographic coverage of Great Lakes, St. Lawrence River and surrounding oceans

Next two numbers: geographic reference date

The geographic reference date is a date determined by Statistics Canada for the purpose of finalizing the geographic framework for which 2011 Census statistical data are collected, tabulated and reported. For 2011 Census products, the geographic reference date is January 1, 2011.

     11   geographic reference date is 2011

Next character: file format

a	ArcGIS® (.shp)
g	Geography Markup Language (.gml)
m	MapInfo® (.tab)

Final two characters: language

_e	English
_f	French

5. Data quality

Spatial data quality elements provide information on the fitness-for-use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The quality elements include an overview reporting on the lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Lineage

Lineage describes the history of the spatial data, including descriptions of the source material from which the data were derived, and the methods of derivation. It also contains the dates of the source material, and all transformations involved in producing the final digital files.

The National Geographic Database (NGD) is a joint Statistics Canada-Elections Canada initiative to develop and maintain a spatial database which serves the needs of both organizations. The focus of the NGD is the continual improvement of quality and currency of spatial coverage using updates from provinces, territories and local sources. The source files used for the creation of the boundary files reside on Statistics Canada's Spatial Data Infrastructure (SDI) which was derived directly from data stored on the NGD.

For digital boundary file creation, spatial and attribute information were extracted from the SDI using the lowest level of geography, the dissemination block. Primary data manipulation of the product files included preserving the geographic hierarchy of the attributes inherent within a geographic level. The dissemination block file was copied into a File Geo Database to facilitate geo-processing (e.g., projecting, joins, transforming and verification operations). The spatial component of the file was reprojected from Lambert Conformal Conic into latitude and longitude coordinates (NAD83) using the ArcGIS® ArcCatalog Feature-Project tool.

All of the higher level digital boundary files were created from the dissemination block level. The files were verified for their spatial and attribute content, translated into French and English, and appropriately named according to the file naming convention. The 2011 Census standard geographic area unique identifier, name, type, and the relationships among the various geographic levels are found on the SDI.

To create the cartographic boundary files, a subset of the full hydrography, the coastal file, was created. This subset of coastal hydrographic features was then used to erase portions of dissemination blocks that are covered by coastal waters.

The inland lakes and rivers file was created by selecting hydrographic features from the National Geographic Database's hydrographic reference layer. These reference data were sourced from the National Topographic Data Base (1:50,000 and the 1:250,000 maps) and the Digital Chart of the World. In British Columbia, information was supplemented with data from the National Hydro Network.

The inland lakes and rivers polygon file contains a selection of hydrographic bodies not found in the coastal file. The inland rivers file contains a selection of linear hydrographic features such as rivers and streams.

Final data processing consisted of the conversion from the File Geo Database format, using FME® (Safe Software), into the following GIS file formats: ArcGIS® (.shp), Geography Markup Language (.gml) and MapInfo® (.tab).

Positional accuracy

Positional accuracy refers to the absolute and relative accuracy of the positions of geographic features. Absolute accuracy is the closeness of the coordinate values in a dataset to values accepted as or being true. Relative accuracy is the closeness of the relative positions of features to their respective relative positions accepted as or being true. Descriptions of positional accuracy include the quality of the final file or product after all transformations.

The Spatial Data Infrastructure is not Global Positioning Systems (GPS)-compliant. However, every possible attempt is made to ensure that the 2011 Census standard geographic area boundaries maintained in the Spatial Data Infrastructure respect the limits of the administrative entities that they represent (e.g., census division and census subdivision) or on which they are based (e.g., census metropolitan area or census agglomeration). The positional accuracy of these limits is dependent upon source materials used by Statistics Canada to identify the location of limits. In addition, due to the importance placed on relative positional accuracy, the positional accuracy of other geographic data (e.g., road network data and hydrographic data) that are stored within the Spatial Data Infrastructure is considered when positioning the limits of the 2011 Census standard geographic areas.

Within Statistics Canada's Spatial Data Infrastructure, dissemination block representative points were generated using ArcGIS® software in conjunction with their respective cartographic boundaries. The most detailed hydrography available was used in identifying cartographic boundaries and calculating representative points in Statistics Canada's native database format. Efforts were made to ensure that representative points do not fall in water, where possible. After geo-processing the dissemination block boundary file and the hydrography files (e.g., projecting, appending, transforming and verification operations) and converting into ArcGIS (.shp), Geography Markup Language (.gml) or MapInfo (.tab) files, these manipulations may have caused slight shifting of some of the underlying land and hydrography features resulting in representative points falling in water.

Attribute accuracy

Attribute accuracy refers to the accuracy of the quantitative and qualitative information attached to each feature (e.g., census division unique identifier, name).

As noted under Lineage, the attributes (names, types and unique identifiers) for all 2011 Census standard geographic areas are sourced from Statistics Canada's Spatial Data Infrastructure. The names and types of administrative 2011 Census standard geographic areas have been updated for the 2011 Census using source materials from provincial and territorial authorities.

The attribute data associated with the polygons in the boundary files were verified against the data in the Spatial Data Infrastructure and found to be accurate.

Logical consistency

Logical consistency describes the fidelity of relationships encoded in the data structure of the digital spatial data.

The boundary files were verified against the data in the Spatial Data Infrastructure and found to be logically consistent.

Consistency with other products

Topology checks were performed with the road network file and boundary files to measure the degree of integration amongst these products. The results indicated the degree of integration was within the default tolerance parameters as defined below.

XY Resolution: 0.000000001 degrees
XY Tolerance: 0.000000008983153 degrees

The 2011 Census Boundary Files and the associated hydrographic reference files are not necessarily compatible with files available from other sources.

Completeness

Completeness refers to the degree to which geographic features, their attributes and their relationships are included or omitted in a dataset. It also includes information on selection criteria, definitions used, and other relevant mapping rules.

Each boundary file contains the complete set of 2011 Census standard geographic areas for that level of the geographic hierarchy with the exception of the Dissemination Block Cartographic Boundary File and the Designated Place Cartographic Boundary File.

It is important to note that in both digital boundary files and cartographic boundary files, a 2011 Census standard geographic area may be depicted by more than one polygon. In the digital boundary files there are some 2011 Census standard geographic areas that have two or more parts. This is particularly the case for some census subdivisions. In cartographic boundary files, this is due to having removed the coastal water area from the digital boundary files, thus creating several polygons for one 2011 Census standard geographic area. In the cartographic boundary files this impacts only on 2011 Census standard geographic areas that are situated in coastal areas.

Below is a list of the 153 dissemination blocks which are not included within the cartographic boundary file. These dissemination blocks are located entirely within coastal waters and were therefore removed during the production of the dissemination block cartographic boundary file.

1001050321	1209084511	1217039801	1314016201	3551010630
1001050322	1209084512	1217039902	1315015803	3558038552
1001050401	1209084513	1217040004	1315015901	3558043301
1001052001	1209084514	1217040316	1315016605	3560032309
1001055609	1209084624	1217040419	1315017801	5915005618
1001068206	1209084625	1217040514	1315022001	5915324116
1001071915	1209084626	1217040619	1315029006	5915356908
1001072415	1209084627	1217041510	1315029104	5915356909
1002007920	1209084628	1217041723	2401002615	5915357612
1002007921	1209098004	1217042005	2402006406	5915360205
1002011705	1209098104	1217042509	2402006412	5917033105
1003007304	1212011001	1217042603	2410012219	5917047201
1004010913	1212012209	1217042929	2423006601	5917062904
1007048703	1214003909	1217043205	2423006610	5917063410
1007051918	1217035218	1217044003	2437029911	5917064208
1007051927	1217035219	1217044308	2465066705	5917064819
1007055003	1217035305	1217044605	2471024721	5917068801
1007055004	1217035507	1217044913	2472019943	5919018901
1008017007	1217035508	1217045010	2497008743	5919030508
1008022116	1217035702	1217045112	2497012525	5921026004
1103009910	1217035703	1217051713	3507022916	5924021206
1103013011	1217035809	1217052209	3528021912	5924026415
1103016014	1217036209	1217052812	3528022050	5926042407
1103016841	1217036707	1217053104	3528022051	5929015013
1201004907	1217037415	1302005612	3537081315	5929016502
1201004908	1217037814	1302006110	3541014619	5929017310
1201004909	1217038913	1302006304	3542024424	5943007022
1204003909	1217039316	1302007220	3543089711	5947006305
1204003910	1217039506	1302007221	3543089712	6204006239
1209083805	1217039612	1302007222	3551007201	
1209084510	1217039705	1314009312	3551009002	

There are seven dissemination blocks that are entirely covered by the Coastal (polygons) and Lakes and Rivers (polygons) hydrographic reference files, consequently, the representative points of these dissemination blocks are located in water.

1001059101, 1209084623, 1217045420, 1217045814, 1217045908, 1217046214, 5921021202

There are six dissemination blocks where the respective representative points are situated on a very small island located within the Coastal (polygons) hydrographic reference file where the coastal islands appear as water polygons and therefore the representative points appear to be located in coastal waters.

1201005326, 1314016106, 1302010202, 3560032118, 5917064901, 5919148006

There are eight dissemination blocks included within the cartographic boundary file where representative points are located in coastal water. Coastal water was edited in a manner where 'slivers' appearing between water and land were converted into coastal water and as a result the representative points for these eight dissemination blocks are located in water.

1315016601, 2466270705, 3513004410, 3520482703, 3526012429, 3526020917, 5915356919, 5917068803

There are two dissemination blocks included within the cartographic boundary file though their representative points are located in coastal water. The coastal water was edited for cartographic boundary file production.

1007015410, 5919019905

Below is a list of the four designated places (DPLs) which are not included within the cartographic boundary file. These DPLs are located entirely within water and were therefore removed during the production of the designated place cartographic boundary file.

DPLNAME	DPLUID
Campbell part B	350084
Gambier Island Trust Area part E	590253
Saltspring Island Trust Area part D	590237
Saltspring Island Trust Area part F	590239

In 2006, DPLs were not allowed to cross census subdivision (CSD) boundaries. To ensure that DPLs created in 2001 or earlier respect 2006 CSD boundaries, DPLs straddling CSD boundaries were split to create independent DPLs. To maintain historical comparability and ease the transition into this new criteria, each new independent DPL kept its existing name, with 'part' added to it, such as part A, part B, and was assigned its own unique code. Following consultation with provincial authorities, the above-mentioned DPLs are among those that were maintained despite the fact that they existed wholly within water, and continue to do so in 2011. Therefore, when creating the cartographic boundary file, these four DPLs were erased.

Appendix A Glossary

Adjusted counts
'Adjusted counts' refer to previous census population and dwelling counts that were adjusted (i.e., recompiled) to reflect current census boundaries, when a boundary change occurs between the two censuses.

Block-face
A block-face is one side of a street between two consecutive features intersecting that street. The features can be other streets or boundaries of standard geographic areas.

Block-faces are used for generating block-face representative points, which in turn are used for geocoding and census data extraction when the street and address information are available.

Cartographic boundary files
Cartographic boundary files (CBFs) portray the boundaries of standard geographic areas together with the shoreline around Canada. Selected inland lakes and rivers are available as supplementary layers.

Census agricultural region
Census agricultural regions (CARs) are composed of groups of adjacent census divisions. In Saskatchewan, census agricultural regions are made up of groups of adjacent census consolidated subdivisions, but these groups do not necessarily respect census division boundaries.

Census consolidated subdivision
A census consolidated subdivision (CCS) is a group of adjacent census subdivisions. Generally, the smaller, more densely-populated census subdivisions (towns, villages, etc.) are combined with the surrounding, larger, more rural census subdivision, in order to create a geographic level between the census subdivision and the census division.

Census division
Census division (CD) is the general term for provincially legislated areas (such as county, *municipalité régionale de comté* and regional district) or their equivalents. Census divisions are intermediate geographic areas between the province/ territory level and the municipality (census subdivision).

Census metropolitan area and census agglomeration
A census metropolitan area (CMA) or a census agglomeration (CA) is formed by one or more adjacent municipalities centred on a population centre (known as the core). A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the core. A CA must have a core population of at least 10,000. To be included in the CMA or CA, other adjacent municipalities must have a high degree of integration with the core, as measured by commuting flows derived from previous census place of work data.

If the population of the core of a CA declines below 10,000, the CA is retired. However, once an area becomes a CMA, it is retained as a CMA even if its total population declines below 100,000 or the population of its core falls below 50,000. Small population centres with a population count of less than 10,000 are called fringe. All areas inside the CMA or CA that are not population centres are rural areas.

When a CA has a core of at least 50,000, it is subdivided into census tracts. Census tracts are maintained for the CA even if the population of the core subsequently falls below 50,000. All CMAs are subdivided into census tracts.

Census metropolitan influenced zone
The census metropolitan influenced zone (MIZ) is a concept that geographically differentiates the area of Canada outside census metropolitan areas (CMAs) and census agglomerations (CAs). Census subdivisions (CSDs) within provinces that are outside CMAs and CAs are assigned to one of four categories according to the degree of influence (strong, moderate, weak or no influence) that the CMAs or CAs have on them. CSDs within the territories that are outside CAs are assigned to a separate category.

Census subdivisions within provinces are assigned to a MIZ category based on the percentage of their resident employed labour force that commutes to work in the core(s) of CMAs or CAs. CSDs with the same degree of influence tend to be clustered. They form zones around CMAs and CAs that progress through the categories from 'strong' to 'no' influence as distance from the CMAs and CAs increases. As many CSDs in the territories are very large and sparsely populated, the commuting flow of the resident employed labour force is unstable. For this reason, CSDs in the territories that are outside CAs are assigned to a separate category that is not based on their commuting flows.

Census subdivision
Census subdivision (CSD) is the general term for municipalities (as determined by provincial/territorial legislation) or areas treated as municipal equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories).

Census tract
Census tracts (CTs) are small, relatively stable geographic areas that usually have a population between 2,500 and 8,000 persons. They are located in census metropolitan areas and in census agglomerations that had a core population of 50,000 or more in the previous census.

A committee of local specialists (for example, planners, health and social workers, and educators) initially delineates census tracts in conjunction with Statistics Canada. Once a census metropolitan area (CMA) or census agglomeration (CA) has been subdivided into census tracts, the census tracts are maintained even if the core population subsequently declines below 50,000.

Coordinate system
A coordinate system is a reference system based on mathematical rules for specifying positions (locations) on the surface of the earth. The coordinate values can be spherical (latitude and longitude) using angular units of measure such as degrees, minutes and seconds or planar (Universal Transverse Mercator) using linear units such as metres.

Cartographic boundary files, digital boundary files, representative points and road network files are disseminated in latitude/longitude coordinates.

Core, fringe and rural area
The terms 'core,' 'fringe' and 'rural area' replace the terms 'urban core,' 'urban fringe' and 'rural fringe' for the 2011 Census. These terms distinguish between population centres (POPCTRs) and rural areas (RAs) within a census metropolitan area (CMA) or census agglomeration (CA).

A CMA or CA can have two types of cores: the core and the secondary core. The core is the population centre with the highest population, around which a CMA or a CA is delineated. The core must have a population (based on the previous census) of at least 50,000 persons in the case of a CMA, or at least 10,000 persons in the case of a CA.

The secondary core is a population centre within a CMA that has at least 10,000 persons and was the core of a CA that has been merged with an adjacent CMA.

The term 'fringe' includes all population centres within a CMA or CA that have less than 10,000 persons and are not contiguous with the core or secondary core.

All territory within a CMA or CA that is not classified as a core or fringe is classified as rural area.

Datum
A datum is a geodetic reference system which includes an ellipsoid and an origin against which the latitude and longitude of all other points on the earth's surface are referenced. A datum may often be associated with a particular ellipsoid (mathematical reference model of the earth).

Designated place
A designated place (DPL) is normally a small community or settlement that does not meet the criteria established by Statistics Canada to be a census subdivision (an area with municipal status) or a population centre.

Designated places are created by provinces and territories, in cooperation with Statistics Canada, to provide data for submunicipal areas.

Digital boundary files
Digital boundary files (DBFs) portray the boundaries used for census data collection and, therefore, often extend as straight lines into bodies of water.

Dissemination area
A dissemination area (DA) is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks. It is the smallest standard geographic area for which all census data are disseminated. DAs cover all the territory of Canada.

Dissemination block
A dissemination block (DB) is an area bounded on all sides by roads and/or boundaries of standard geographic areas. The dissemination block is the smallest geographic area for which population and dwelling counts are disseminated. Dissemination blocks cover all the territory of Canada.

Economic region
An economic region (ER) is a grouping of complete census divisions (CDs) (with one exception in Ontario) created as a standard geographic unit for analysis of regional economic activity.

Ecumene
Ecumene is a term used by geographers to mean inhabited land. It generally refers to land where people have made their permanent home, and to all work areas that are considered occupied and used for agricultural or any other economic purpose. Thus, there can be various types of ecumenes, each having its own unique characteristics (population ecumene, agricultural ecumene, industrial ecumene, etc.).

Federal electoral district
A federal electoral district (FED) is an area represented by a member of the House of Commons. The federal electoral district boundaries used for the 2011 Census are based on the 2003 Representation Order.

Geocoding
Geocoding is the process of assigning geographic identifiers (codes or x,y coordinates) to map features and data records. The resulting geocodes permit data to be linked geographically to a place on the earth.

Households, postal codes[OM] and place of work data are linked to block-face representative points (coordinates) when the street and address information is available; otherwise, they are linked to dissemination block (DB) representative points. In some cases, postal codes[OM] and place of work data are linked to dissemination area (DA) representative points when they cannot be linked to DBs. As well, place of work data are linked to census subdivision representative points when the data cannot be linked to DAs.

OM: Postal code is an official mark of Canada Post Corporation.

Geographic code
A geographic code is a numerical identifier assigned to a geographic area. The code is used to identify and access standard geographic areas for the purposes of data storage, retrieval and display.

Geographic reference date
The geographic reference date is a date determined by Statistics Canada for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For the 2011 Census, the geographic reference date is January 1, 2011.

Geographical region of Canada
The geographical regions of Canada are groupings of provinces and territories established for the purpose of statistical reporting. The six geographical regions of Canada are: Atlantic, Quebec, Ontario, Prairies, British Columbia and Territories.

Land area
Land area is the area in square kilometres of the land-based portions of standard geographic areas. Land area data are unofficial and are provided for the sole purpose of calculating population density.

Map projection
A map projection is the process of transforming and representing positions from the earth's three-dimensional curved surface to a two-dimensional (flat) surface. The process is accomplished by a direct geometric projection or by a mathematically derived transformation.

The Lambert conformal conic map projection is widely used for general maps of Canada at small scales and is the most common map projection used at Statistics Canada.

National Geographic Database
The National Geographic Database (NGD) is a shared database between Statistics Canada and Elections Canada. The database contains roads, road names and address ranges. It also includes separate reference layers containing physical and cultural features, such as hydrography and hydrographic names, railroads and power transmission lines.

Place name
'Place name' refers to selected names of active and retired geographic areas as well as names from the Canadian Geographical Names Data Base. Place names include names of census subdivisions (municipalities), designated places and population centres, as well as the names of some local places.

Population centre
A population centre (POPCTR) has a population of at least 1,000 and a population density of 400 persons or more per square kilometre, based on the current census population count. All areas outside population centres are classified as rural areas. Taken together, population centres and rural areas cover all of Canada.

Population centres are classified into three groups, depending on the size of their population:

- small population centres, with a population between 1,000 and 29,999
- medium population centres, with a population between 30,000 and 99,999
- large urban population centres, with a population of 100,000 or more

Population centre population includes all population living in the cores, secondary cores and fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as the population living in population centres outside CMAs and CAs.

Population density
Population density is the number of persons per square kilometre.

Postal code[OM]

The postal code[OM] is a six-character code defined and maintained by Canada Post Corporation for the purpose of sorting and delivering mail.

Province or territory

'Province' and 'territory' refer to the major political units of Canada. From a statistical point of view, province and territory are basic areas for which data are tabulated. Canada is divided into 10 provinces and 3 territories.

Reference map

A reference map shows the location of the geographic areas for which census data are tabulated and disseminated. The maps display the boundaries, names and unique identifiers of standard geographic areas, as well as major cultural and physical features, such as roads, railroads, coastlines, rivers and lakes.

Representative point

A representative point is a coordinate point that represents a line or a polygon. The point is centrally located along the line, and centrally located or population weighted in the polygon.

Representative points are generated for block-faces, as well as for selected geographic areas – province/territory (PR), federal electoral district (FED), economic region (ER), census division (CD), census metropolitan area/census agglomeration (CMA/CA), census subdivision (CSD), population centre (POPCTR), designated place (DPL), census tract (CT), dissemination area (DA) and dissemination block (DB).

Households, postal codes[OM] and place of work data are linked to block-face representative points (coordinates) when the street and address information is available; otherwise, they are linked to dissemination block (DB) representative points. In some cases, postal codes and place of work data are linked to dissemination area (DA) representative points when they cannot be linked to DBs. As well, place of work data are linked to census subdivision (CSD) representative points when the data cannot be linked to DAs.

Road network file

The road network file (RNF) contains streets, street names, types, directions and address ranges. Address ranges are dwelling-based.

Rural area

Rural areas (RAs) include all territory lying outside population centres (POPCTRs). Taken together, population centres and rural areas cover all of Canada.

Rural population includes all population living in rural areas of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as population living in rural areas outside CMAs and CAs.

Spatial Data Infrastructure

The Spatial Data Infrastructure (SDI) is an internal maintenance database that is not disseminated outside of Statistics Canada. It contains roads, road names and address ranges from the National Geographic Database (NGD), as well as boundary arcs of standard geographic areas that do not follow roads, all in one integrated line layer. The database also includes a related polygon layer consisting of basic blocks (BB; basic blocks are the smallest polygon units in the database, and are formed by the intersection of all roads and the arcs of geographic areas that do not follow roads), boundary layers of standard geographic areas, and derived attribute tables, as well as reference layers containing physical and cultural features (such as hydrography, railroads and power transmission lines) from the NGD.

The SDI supports a wide range of census operations, such as the maintenance and delineation of the boundaries of standard geographic areas (including the automated delineation of dissemination blocks and population centres) and geocoding. The SDI is also the source for generating many geography products for the 2011 Census, such as cartographic boundary files and road network files.

Spatial data quality elements
Spatial data quality elements provide information on the fitness for use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The elements include an overview describing the purpose and usage, as well as specific quality elements reporting on the lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Standard Geographical Classification
The Standard Geographical Classification (SGC) 2011 is Statistics Canada's main classification of geographic areas in Canada. It is designed to classify statistical information by geographic areas. The classification consists of four levels: geographical regions of Canada, provinces and territories, census divisions (such as counties and regional municipalities) and census subdivisions (such as municipalities). The four geographic levels are hierarchically related; a seven-digit code is used to show this relationship.

Statistical Area Classification
The Statistical Area Classification (SAC) groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration or a census metropolitan influenced zone (MIZ). The MIZ classifies all CSDs in provinces and territories that are outside census metropolitan areas and census agglomerations.

The Statistical Area Classification is a variant of the Standard Geographical Classification (SGC). Census subdivisions (CSDs) form the lowest level of the classification variant. The next level consists of individual census metropolitan areas (CMAs), census agglomerations (CAs) and census metropolitan influenced zones (MIZs). The highest level consists of three categories that cover all of the land mass of Canada:

- census metropolitan areas
- census agglomerations
- outside census metropolitan areas and census agglomerations.

The SAC provides unique numeric identification (codes) for these hierarchically-related geographic areas. It was established for the purpose of reporting statistics.

Thematic map
A thematic map shows the spatial distribution of one or more specific data themes for selected geographic areas. The map may be qualitative in nature (e.g., predominant farm types) or quantitative (e.g., percentage population change).

Appendix B Hierarchy of standard geographic units for dissemination, 2011 Census

Figure B.1 Hierarchy of standard geographic units for dissemination, 2011 Census
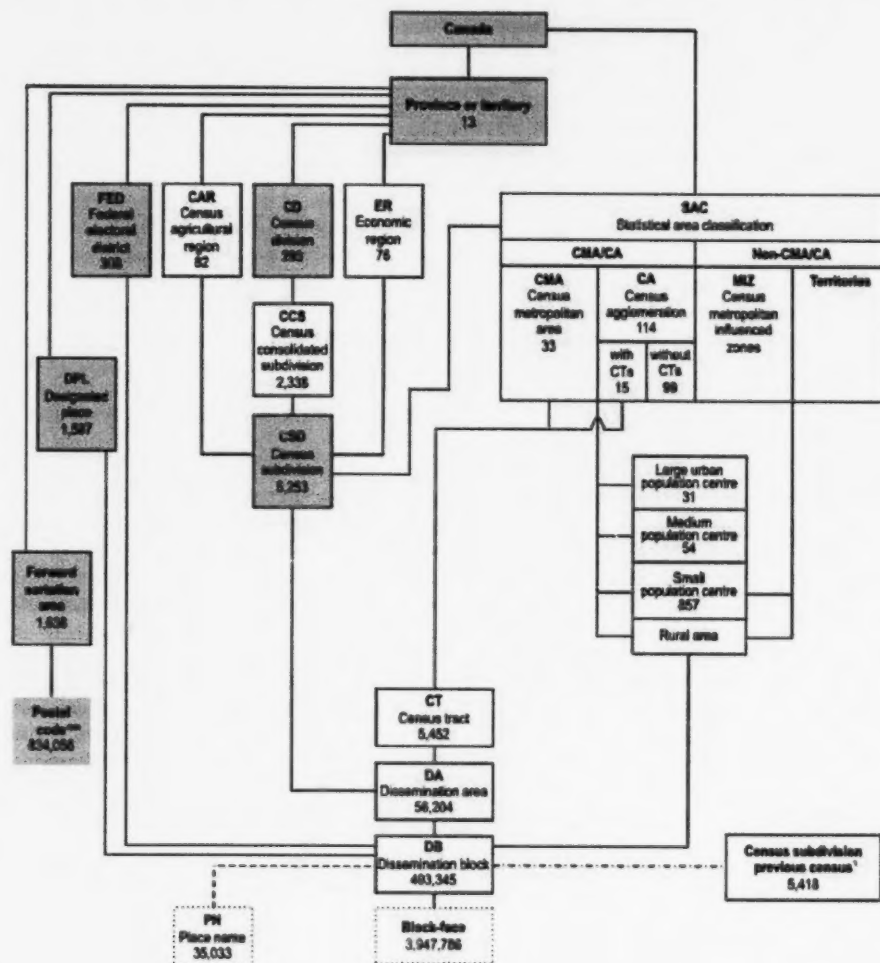
1. A best fit linkage is created between the previous census CSDs and the current census dissemination blocks to facilitate historical data retrieval.

Sources: Statistics Canada, 2011 Census of Population; Canada Post Corporation, May 2011.

Appendix C Geographic units by province and territory, 2011 Census

Table C.1 Geographic units by province and territory, 2011 Census

Geographic unit	Canada 2006	Canada 2011	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Federal electoral district (2003 Representation Order)	308	308	7	4	11	10	75	106	14	14	28	36	1	1	1
Economic region	76	76	4	1	5	5	17	11	8	6	8	8	1	1	1
Census agricultural region	82	82	3	3	5	4	14	5	12	20	8	8	0	0	0
Census division	288	293	11	3	18	15	98	49	23	18	19	29	1	6	3
Census consolidated subdivision	2,341	2,338	89	68	43	151	1,005	316	126	300	77	153	1	6	3
Census subdivision (CSD)	5,418	5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31
CSD dissolutions (Jan. 2, 2006 to Jan. 1, 2011)	221	...	3	0	1	6	13	13	13	26	19	126	0	1	0
CSD incorporations (Jan. 2, 2006 to Jan. 1, 2011)	...	56	2	0	0	3	4	2	3	1	1	33	2	5	0
Designated place	1,289	1,507	183	0	65	167	106	114	97	194	261	319	1	0	0
Census metropolitan area	33	33	1	0	1	2	6[1]	15[1]	1	2	2	4	0	0	0
Census agglomeration (CA)	111	114	3	2	4	5[1]	25[1]	28[1]	4	7[1]	16[1]	21	1	1	0
CA with census tracts	15	15	0	0	0	1	3	4	0	0	3	4	0	0	0
CA without census tracts	96	99	3	2	4	4[1]	22[1]	24[1]	4	7[1]	13[1]	17	1	1	0
Census tract	5,076	5,452	47	0	93	102	1,371	2,273	173	109	573	711	0	0	0
Small population centre (1,000 to 29,999)	811	857	29	6	35	30[1]	224[1]	237[1]	42[1]	59[1]	101[1]	87	1	3	7
Medium population centre (30,000 to 99,999)	54	54	0	1	1	2	13	19	1	2	6	9	0	0	0
Large urban population centre (100,000 or more)	29	31	1	0	1	1	6[1]	14[1]	1	2	2	4	0	0	0
Place name	21,411	35,033	1,836	709	3,138	2,679	6,985	8,091	1,839	2,687	3,117	3,528	195	153	76
Dissemination area	54,626	56,204	1,071	293	1,645	1,454	13,622	19,964	2,179	2,467	5,711	7,582	68	98	50
Dissemination block	478,831	493,345	8,732	3,573	15,842	15,415	109,455	132,777	30,471	51,610	66,332	55,529	1,359	1,492	758
Block-face	3,739,041	3,947,786	81,868	27,050	155,484	135,411	842,992	1,003,813	201,005	362,238	525,180	577,975	13,036	15,612	6,122
Forward sortation area	1,625	1,638	35	7	77	111	418	526	64	48	153	190	3	3	3
Postal code	805,640	834,056	10,878	3,316	27,852	58,617	212,162	276,844	24,568	21,923	80,948	115,435	968	516	29

... not applicable

1. Census metropolitan areas, census agglomerations, large urban population centres and small population centres crossing provincial boundaries are counted in both provinces, and, therefore, do not add up to the national total.

Sources: Statistics Canada, 2011 Census of Population; Canada Post Corporation, May 2011.

Appendix D Census subdivision types by province and territory, 2011 Census

Table D.1 Census subdivision types by province and territory, 2011 Census

Census subdivision type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
		5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31
C	City / Cité	6	...	...	...	4	...	2	...	...	...	...	...	...	...
CC	Chartered community	3	...	...	...	...	...	...	...	...	...	...	...	3	...
CG	Community government	4	...	...	...	...	...	...	...	...	...	...	...	4	...
CN	Crown colony / Colonie de la couronne	1	...	...	...	...	...	...	...	1	...	...	...	...	...
COM	Community	33	...	33	...	...	...	...	...	...	...	...	...	...	...
CT	Canton (municipalité de)	45	...	...	...	...	45	...	...	...	...	...	...	...	...
CU	Cantons unis (municipalité de)	2	...	...	...	...	2	...	...	...	...	...	...	...	...
CV	City / Ville	2	...	...	...	...	...	2	...	...	...	...	...	...	...
CY	City	149	3	2	...	4	...	46	9	16	17	49	1	1	1
DM	District municipality	52	...	...	...	...	...	...	...	...	...	52	...	...	...
HAM	Hamlet	36	...	...	...	...	...	...	...	...	...	...	2	10	24
ID	Improvement district	7	...	...	...	...	...	...	...	...	7	...	...	...	...
IGD	Indian government district	2	...	...	...	...	...	...	...	...	...	2	...	...	...
IM	Island municipality	1	...	...	...	...	...	...	...	...	...	1	...	...	...
IRI	Indian reserve / Réserve indienne	961	3	4	25	18	27	139	75	168	81	419	...	2	...
LGD	Local government district	2	...	...	...	...	...	...	2	...	...	...	...	...	...
LOT	Township and royalty	67	...	67	...	...	...	...	...	...	...	...	...	...	...
M	Municipality / Municipalité	3	...	...	...	...	...	3	...	...	...	...	...	...	...
MD	Municipal district	76	...	...	12	...	...	...	...	...	64	...	...	...	...
MÉ	Municipalité	619	...	...	...	...	619	...	...	...	...	...	...	...	...
MU	Municipality	54	...	...	...	...	...	54	...	...	...	...	...	...	...
NH	Northern hamlet	11	...	...	...	...	...	...	...	11	...	...	...	...	...
NL	Nisga'a land	1	...	...	...	...	...	...	...	...	...	1	...	...	...
NO	Unorganized / Non organisé	137	...	...	...	...	96	16	10	2		...	4	6	3
NV	Northern village	11	...	...	...	...	...	...	...	11	...	...	...	...	...
P	Parish / Paroisse (municipalité de)	150	...	...	...	150	...	...	...	...	...	...	...	...	...
PE	Paroisse (municipalité de)	179	...	...	...	...	179	...	...	...	...	...	...	...	...
RCR	Rural community / Communauté rurale	4	...	...	...	4	...	...	...	...	...	...	...	...	...
RDA	Regional district electoral area	158	...	...	...	...	...	...	...	...	...	158	...	...	...
RG	Region	1	1	...	...	...	...	...	...	...	...	...	...	...	...

Table D.1 Census subdivision types by province and territory, 2011 Census (continued)

Census subdivision type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
RGM	Regional municipality	4	...	...	3	...	...	...	...	...	...	1	...	...	...
RM	Rural municipality	413	...	...	...	...	...	...	117	296	...	...	...	...	...
RV	Resort village	40	...	...	...	...	...	...	...	40	...	...	...	...	...
S-É	Indian settlement / Établissement indien	28	...	...	...	...	6	5	4	1	4	3	5	...	...
SA	Special area	3	...	...	...	...	...	...	...	...	3	...	...	...	...
SC	Subdivision of county municipality / Subdivision municipalité de comté	28	...	...	28	...	...	...	...	...	...	...	...	...	...
SÉ	Settlement / Établissement	13	...	...	...	...	...	...	...	...	...	...	13	...	...
SET	Settlement	13	...	...	...	...	...	...	...	...	...	...	...	10	3
SG	Self-government / Autonomie gouvernementale	4	...	...	...	...	...	...	...	...	...	...	4	...	...
SM	Specialized municipality	5	...	...	...	...	...	...	...	...	5	...	...	...	...
SNO	Subdivision of unorganized / Subdivision non organisée	92	92	...	...	...	...	...	...	...	...	...	...	...	...
SV	Summer village	51	...	...	...	...	...	...	...	...	51	...	...	...	...
T	Town	743	277	7	31	13	...	88	51	147	108	14	3	4	...
TC	Terres réservées aux Cris	8	...	...	...	...	8	...	...	...	...	...	...	...	...
TI	Terre inuite	12	...	...	...	...	12	...	...	...	...	...	...	...	...
TK	Terres réservées aux Naskapis	1	...	...	...	...	1	...	...	...	...	...	...	...	...
TL	Teslin land	1	...	...	...	...	...	...	...	...	...	...	1	...	...
TP	Township	207	...	...	...	...	...	207	...	...	...	...	...	...	...
TV	Town / Ville	15	...	...	...	14	...	1	...	...	...	...	...	...	...
V	Ville	222	...	...	...	...	222	...	...	...	...	...	...	...	...
VC	Village cri	8	...	...	...	...	8	...	...	...	...	...	...	...	...
VK	Village naskapi	1	...	...	...	...	1	...	...	...	...	...	...	...	...
VL	Village	550	...	...	...	66	45	11	19	266	95	43	4	1	...
VN	Village nordique	14	...	...	...	...	14	...	...	...	...	...	...	...	...

... not applicable
Source: Statistics Canada, 2011 Census of Population.